PTC/SB/08A (08-03)
Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE are Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

Sheet 1

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

of 3

| Co | mplete if Known | |
|------------------------|----------------------|--|
| Application Number | 10/653,719 | |
| Filing Date | 09/02/2003 | |
| First Named Inventor | David T. Chen et al. | |
| Art Unit | 3739 | |
| Examiner Name | John P. Leubecker | |
| Attorney Docket Number | MMS-2E CON 3 | |

| | | | U. S. PATENT | DOCUMENTS | |
|-----------------------|--------------|---|--------------------------------|--|---|
| Examiner Initials* | Cite No.1 | Document Number | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant |
| | | Number-Kind Code ^{2 (7 known)} | | | Figures Appear |
| 2 | -1 | ^{US-} 5,255,352 | 10-19-1993 | Falk | |
| | 2 | ^{US-} 4,729,098 | 03-01-1988 | Cline et al. | |
| | 3 | US- 4,882,679 | 11-21-1989 | Tuy et al. | |
| | 4 | ^{US-} 5,537,638 | 07-16-1996 | Morita et al. | |
| | 5 | ^{US-} 4,945,478 | 07-31-1990 | Merickel et al. | |
| | 6 | ^{US-} 4,965,844 | 10-23-1990 | Oka et al. | |
| | 7 | ^{US-} 4,985,855 | 01-15-1991 | Aldrich et al. | |
| | 8 | ^{US-} 4,989,083 | 01-29-1991 | Eino | |
| | 9 | ^{US-} 5,005,559 | 04-09-1991 | Blanco et al. | |
| | 10 | ^{US-} 5,151,856 | 09-29-1992 | Halmann et al. | |
| | 11 | ^{US-} 5,531,227 | 07-02-1996 | Schneider | |
| | 12 | ^{US-} 5,179,638 | 01-12-1993 | Dawson et al. | |
| | 13 | ^{US-} 5,230,623 | 07-27-1993 | Guthrie et al. | |
| | 14 | US- 5,231,483 | 07-27-1993 | Sieber et al. | |
| | 15 | US- 5,511,153 | 04-23-1996 | Azarbayejani et al. | |
| | 16 | ^{US-} 5,274,551 | 12-28-1993 | Corby Jr. | |
| | 17 | ^{US-} 5,291,889 | 03-08-1994 | Kenet et al. | |
| 4 | 18 | ^{US-} 5,295,199 | 03-15-1994 | Shino | |
| 8 | 19 | ^{US-} 5,297,215 | 03-22-1994 | Yamagishi | |

| f | | FORE | IGN PATENT DOCU | MENTS | | |
|-----------------------|--------------|---|---------------------|--|---|----------------|
| Examiner Initials* | Cite No.1 | Foreign Patent Document | Publication Date | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages | |
| | | Country Code ³ Number ⁴ Kind Code ⁵ (if known) | MM-DD-YYYY | | Or Retevant Figures Appear | T ⁶ |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | ! |

| Examiner | | Date | . / / | 1 | |
|-----------|--------------|------------|-------|-----|--|
| Signature | J LEUSECILAR | Considered | 1/4 | 105 | |
| | | | | | |

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered, include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Mind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

| Unde | r the Paperwork Reduction | Act of | 1995, no persons are required t | o respond to a collection of information | tion unless it contains a valid OMB control number. | |
|-------|-----------------------------------|--------|---------------------------------|--|---|--|
| Sub | stitute for form 1449/PTO | | | Complete if Known | | |
| | | | | Application Number | 10/653,719 | |
| I N | JEODMATION | ם ו | SCLOSURE | Filing Date | 09/02/2003 | |
| | | | | First Named Inventor | David T. Chen et al. | |
| S | TATEMENT I | | · · · · · · | Art Unit | 3739 | |
| | (Use as many sheets as necessary) | | Examiner Name | John P. Leubecker | | |
| Sheet | 2 | of | 3 | Attorney Docket Number | MMS-2E CON 3 | |

| | | | U.S. PATEN | T DOCUMENTS | |
|--------------------|-------------|--|---|--|---|
| Examiner Initials* | Cite No. | Document Number Number-Kind Code ² (Finners) | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
| 2 | 20 | ^{US-} 5,319,551 | 06-07-1994 | Sekiguchi et al. | |
| | 21 | ^{US-} 5,329,310 | 07-12-1994 | Liljegren et al. | |
| | 22 | US- 5,363,476 | 11-08-1994 | Kurashige et al. | |
| | 23 | ^{US-} 5,378,915 | 01-03-1995 | Hines et al. | |
| | 24 | ^{US-} 5,383,454 | 01-24-1995 | Bucholz | |
| | 25 | ^{US-} 5,384,594 | 01-24-1995 | Sieber et al. | |
| | 26 | US- 5,398,684 | 03-31-1995 | Hardy | |
| | 27 | US- 5,497,452 | 03-05-1996 | Shimizu et al. | |
| | 28 | ^{US-} 5,447,154 | 09-05-1995 | Cinquin et al. | |
| 1/ | 29 | ^{US-} 5,448,687 | 09-05-1995 | Hoogerhyde et al. | |
| W | 30 | ^{US-} 5,461,706 | 10-24-1995 | Trow et al. | |
| 23 | 31 | ^{US-} 5,493,595 | 02-20-1996 | Schoolman | |
| × | | US- | | | |
| | | US- | | | |
| | | US- | | | |
| | | US- | | | |
| | † | US- | | | |
| | † | US- | † · · · · · · · · · · · · · · · · · · · | | |
| | | US- | - | <u> </u> | · · · · · · · · · · · · · · · · · · · |

| | | FORE | IGN PATENT DOCU | MENTS _ | | |
|-----------------------|--------------|---|---------------------|--|---|----|
| Examiner Initials* | Cite No.1 | Foreign Patent Document | Publication Date | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages | Γ |
| | | Country Code ³ "Number ⁴ "Kind Code ⁵ (if known) | MM-DD-YYYY | | Or Relevant Figures Appear | Ţ. |
| | | | | | | |
| | | | | | <u></u> | Ţ |
| | | | | | | Ļ |
| | | | | | | Ļ |
| | | | | | | Ł |
| | | | | | | L |

| Examiner | | Date | - | |
|-----------|----------------|------------|-------|----|
| Signature | I To descelled | Considered | 1/4/1 | 05 |
| | | | | |
| | | | | |

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. Senter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Mind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

JC/MMS2ECON3.IDS2

PTO/SB/08B (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

| | der the Paperwork Re | duction A | ct of 1995, no persons ar | e required to respond to a collection of information unless it contains a valid OMB control number. Complete if Known | | |
|--------|-----------------------------------|-----------|---------------------------|--|----------------------|--|
| Subsuu | 119 10F 10/111 1949/P1O | | | Application Number | 10/653,719 | |
| INF | ORMATION | N DIS | CLOSURE | Filing Date | 09/02/2003 | |
| STA | TEMENT ! | BY A | PPLICANT | First Named Inventor | David T. Chen at al. | |
| | (Use as many sheets as necessary) | | | Art Unit | 3738 | |
| | | | | Examiner Name | John P. Leubecker | |
| Sheet | 3 | of | 3 | Attorney Docket Number | MMS-2E CON 3 | |

| | | NON PATENT LITERATURE DOCUMENTS | |
|------------------------------|-----|---|----------------|
| Examiner Cit Initials* No | | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T ² |
| de | -32 | KAWATA et al., Three Dimensional Imaging Of Blood Vessels Using Cone-Beam CT, IEEE Computer Society Press, Proceedings ICIP, 1994, 140-144, vol. 2. | |
| | 33 | KLEIN et al., Identifying Vascular Features With Orientation Specific Filters And B-Spline Snakes, IEEE Computer Society Press, Computers in Cardiology, 1994, 113-116. | |
| | 34 | CHEN et al., Left Ventricle Global Motion And Shape From CT Volumetric Data, IEEE, April 1993, V-101 - V-104. | |
| | 35 | VANRODEN, Don't Look Now, But a Body Has Been Found in the Basement of Cummings Hall, Dartmouth Thayer School of Engineering Directions, Fall 1993, 30-36, vol. 8, no. 1, Trustees of Dartmouth College, Hanover, New Hampshire. | |
| | 36 | ROBERTS et al., A frameless stereotaxic integration of computerized tomographic imaging and the operating microscope, Journal of Neurosurgery, October 1986, 545-549, vol. 65. | |
| | 37 | WEISBURN et al., An interactive graphics editor for 3D surgical simulation, SPIE, 1986, 483-490, vol. 626, Medicine XIV/PACS IV. | |
| | 38 | SHALEV et al., Pseudo-3D imaging with the DICON-8, SPIE, 1985, 63-66, vol. 555, Medical Imaging and Instrumentation '85. | |
| | 39 | FOWLER, Computers May Drive Revolution in Neurosurgery Techniques, Washington Post, Science, August 15, 1994. | |
| Sh. | 40 | APPLICANTS' IRA Magaziner Demo (SeeTM), dispayed June 1993, (24 minutes) | |
| | | | |

| Examiner | | Date | |
|-----------|-----------|------------|--------|
| Signature | LEUBECKER | Considered | 1/4/05 |

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

·

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:

Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.